Ham-Space Digest   Sat, 23 Jul 94   Volume 94 : Issue 202

Today's Topics:
                Hamcom22 program problem (2 msgs)
               STS-65 Orbital State Vector Rev #209
            STS-65 Packet Metabeacons from the Shuttle
                            test
        Two-Line Orbital Element Set: Space Shuttle (3 msgs)

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 21 Jul 1994 10:57:46
From: ihnp4.ucsd.edu!usc!math.ohio-state.edu!cs.utexas.edu!csc.ti.com!
tilde.csc.ti.com!sislnews.csc.ti.com!ken_durham.sc.ti.com!ken@network.ucsd.edu
Subject: Hamcom22 program problem
To: ham-space@ucsd.edu

Hamcom20 and Hamcom22 (which were downloaded from a bulletin board) don't
seem to recognize data at the com port. The op-amp interface used works
ok with Hffax and is the same as the one described in the txt file for
Hamcom. There is no signal on the tuning scope display. No port designation
or definition in the config file seems to help.

Does anyone have a working Hamcom program? I would like to be able to use
this to copy the RTTY from AO-13 rfor the schedule information.

Any ideas?

Thanks, Ken   K5MBV   214-997-3434

Date: 22 Jul 1994 07:48:09 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!EU.net!sunic!news.funet.fi!
ousrvr.oulu.fi!oulu.fi!so-patu@network.ucsd.edu
Subject: Hamcom22 program problem
To: ham-space@ucsd.edu

I had similar problems->to avoid them i installed four diodes instead
of two, and some electrolytic capacitors...hamcomm needs a bridge
rectifier, but for example jvfax doesnt, polarity doesnt change when
running the program...i think there is version 3.0 hamcomm available
today on ftp.funet.fi

    Timo, OH6NVG

Date: Fri, 22 Jul 1994 07:47:28 GMT
From: ihnp4.ucsd.edu!news.cerf.net!gopher.sdsc.edu!nic-nac.CSU.net!
charnel.ecst.csuchico.edu!csusac!csus.edu!netcom.com!astroman@network.ucsd.edu
Subject: STS-65 Orbital State Vector Rev #209
To: ham-space@ucsd.edu

Vector format = 1017
Satellite Name: STS-65
Catalog Number: 23173   94039A
Epoch Date/Time: 94202.74741179398
                        07/21/1994 17:56:16.378 UTC
ECI X: 19271654.241988 ft
M50 Y: -562548.549459 ft
    Z: 10334542.138066 ft
    Xdot: 619.04175 ft/s
    Ydot: 25379.89844 ft/s
    Zdot: 223.00296 ft/s
ndot/2 (drag):   0.00080312110 rev/day^2
nddt/6:   2.70473E-08 rev/day^3
Bstar: 2.36490E-04 1/Earth Radii
Elset #:   35
Rev @ Epoch: 209.24705931049

MSDOS/PC software is available for conversion of
OSV to 2 Line Keplerian Elements via ftp to:
oak.oakland.edu:/pub/msdos/hamradio/v2l9331.zip
and the SIMTEL archives.

State Vectors courtesy Ken Ernandes N2WWD

SM

SB SAREX @ AMSAT $STS-65.018
Packet Metabeacons from Shuttle

Greenbelt, MD July 21, 1994 at 12:30 UTC

The following is a compilation of some of the packet radio metabeacons copied
from the crew on the Space Shuttle Columbia. These were provided by Gil
Carman, WA5NOM, and Andy MacAllister, WA5ZIB. The SAREX working group would
like to extend its thanks all of you who have provided us feedback and downlink
updates of the packet system during the STS-65 mission.

W5RRR-1>QST [07/12/94 17:17:00] <I S6 R0>:
Hello from KC5HBV and KC5FVF aboard the Space Shuttle Columbia
We're well into our mission now conducting materials processing and
life sciences experiments that are paving the way for future operations
aboard our international space station
We've talked to schools in Texas, Florida, Hawaii and Germany via SAREX
and it's been great

17-Jul-94 11:33:16 W5RRR-1*>QST <I;0,0>:

Hello from KC5HBV and KC5FVF aboard the Space Shuttle Columbia
We're half way into our mission now conducting materials processing and
life sciences experiments that are paving the way for future operations
aboard our international space station
We've talked to schools in Texas, Florida, Hawaii, Louisiana Germany and
Japan via Sarex and really enjoyed their enthusiasm for space exploration
and amateur radio
Wishing you all the best on the upcoming 25th anniversary of humankinds
first steps on the Moon

20-Jul-94 10:21:27 W5RRR-1*>QST <I;0,5>:
Greetings from the SAREX station aboard the space shuttle Columbia.
The crew of Columbia is privileged and honored on this 25th anniversary
of one of humankind's greatest achievements to follow in the footsteps
of our craft's namesake, the command module Columbia, which carried
Neil Armstrong, Buzz Aldrin and Michael Collins to the moon. We wish all of

you back on earth who are celebrating this historic anniversary our best
wishes and hope that the one small step for a man taken 25 years ago, will
be a giant leap for people of vision as we go on to International Space Station
and beyond.

21-Jul-94 12:01:17 W5RRR-1*>QST <I;0,4>:
With the conclusion of this most successful mission, we wish everyone
on earth the very best and thank you for your support,
KC5HBV, KC5FVF and the rest of the STS-65 Crew.

21-Jul-94 12:02:17 W5RRR-1*>QRZ <UI>:

Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group

/EX

Date: Thu, 21 Jul 1994 10:44:16
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!cs.utexas.edu!csc.ti.com!
tilde.csc.ti.com!sislnews.csc.ti.com!ken_durham.sc.ti.com!ken@network.ucsd.edu
Subject: test
To: ham-space@ucsd.edu

testing return address

Date: Thu, 21 Jul 1994 21:25:16 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!cs.utexas.edu!convex!
news.duke.edu!zombie.ncsc.mil!blackbird.afit.af.mil!tkelso@network.ucsd.edu
Subject: Two-Line Orbital Element Set: Space Shuttle
To: ham-space@ucsd.edu

The most current orbital elements from the NORAD two-line element sets are
carried on the Celestial BBS, (513) *253-9767*, and are updated daily (when
possible). Documentation and tracking software are also available on this
system. As a service to the satellite user community, the most current
elements for the current shuttle mission are provided below. The Celestial
BBS may be accessed 24 hours/day at 300, 1200, 2400, 4800, or 9600 bps using
8 data bits, 1 stop bit, no parity.

Element sets (also updated daily), shuttle elements, and some documentation
and software are also available via anonymous ftp from archive.afit.af.mil
(129.92.1.66) in the directory pub/space.

STS 65

```
1 23173U 94039A   94202.25000000  .00002020  00000-0  44397-5 0   453
2 23173  28.4656 273.8288 0003567  85.3765  27.8860 15.91314999  2006
--
```
Dr TS Kelso   Assistant Professor of Space Operations
tkelso@afit.af.mil   Air Force Institute of Technology

Date: Wed, 20 Jul 1994 15:10:23 MDT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!
europa.eng.gtefsd.com!newsxfer.itd.umich.edu!nntp.cs.ubc.ca!alberta!ve6mgs!
usenet@network.ucsd.edu
Subject: Two-Line Orbital Element Set: Space Shuttle
To: ham-space@ucsd.edu

The most current orbital elements from the NORAD two-line element sets are
carried on the Celestial BBS, (513) *253-9767*, and are updated daily (when
possible). Documentation and tracking software are also available on this
system. As a service to the satellite user community, the most current
elements for the current shuttle mission are provided below. The Celestial
BBS may be accessed 24 hours/day at 300, 1200, 2400, 4800, or 9600 bps using
8 data bits, 1 stop bit, no parity.

Element sets (also updated daily), shuttle elements, and some documentation
and software are also available via anonymous ftp from archive.afit.af.mil
(129.92.1.66) in the directory pub/space.

```
STS 65
1 23173U 94039A   94200.91666667  .00002073  00000-0  46300-5 0   411
2 23173  28.4671 283.8025 0003613  71.6908 307.1635 15.91200958  1790
--
```
Dr TS Kelso   Assistant Professor of Space Operations
tkelso@afit.af.mil   Air Force Institute of Technology

Date: Thu, 21 Jul 1994 15:25:33 MDT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!library.ucla.edu!europa.eng.gtefsd.com!
newsxfer.itd.umich.edu!nntp.cs.ubc.ca!alberta!ve6mgs!usenet@network.ucsd.edu
Subject: Two-Line Orbital Element Set: Space Shuttle
To: ham-space@ucsd.edu

The most current orbital elements from the NORAD two-line element sets are
carried on the Celestial BBS, (513) *253-9767*, and are updated daily (when
possible). Documentation and tracking software are also available on this
system. As a service to the satellite user community, the most current
elements for the current shuttle mission are provided below. The Celestial
BBS may be accessed 24 hours/day at 300, 1200, 2400, 4800, or 9600 bps using

8 data bits, 1 stop bit, no parity.

Element sets (also updated daily), shuttle elements, and some documentation
and software are also available via anonymous ftp from archive.afit.af.mil
(129.92.1.66) in the directory pub/space.

STS 65
1 23173U 94039A   94202.25000000 .00002020 00000-0 44397-5 0   453
2 23173 28.4656 273.8288 0003567 85.3765 27.8860 15.91314999 2006
--
Dr TS Kelso   Assistant Professor of Space Operations
tkelso@afit.af.mil   Air Force Institute of Technology

Date: Thu, 21 Jul 1994 18:08:43 GMT
From: pipex!demon!news@uunet.uu.net
To: ham-space@ucsd.edu

References <n7ryw.23.001735AB@teleport.com>,
<a229aa-180794102803@hofbrau.sps.mot.com>, <wrothCt6wvC.8ro@netcom.com>
Subject : Re: Portable 9600 buad PacSat Station Design

In article <wrothCt6wvC.8ro@netcom.com> wroth@netcom.com (Wayne D Roth) writes:
>Chris Terwilliger (a229aa@email.sps.mot.com) wrote:

>Not for communication with the pacsats there isn't, or do you know of a
>mac based package that replaces the pb/pg suite? The only way I know
>that you can work the pacsats using broadcast/ftl0 protocal with a mac is
>with an IBM PC emulator.
>--
>   wroth@netcom.com

Ok I'll try this again.

Yes there is a version of the broadcast protocal for the Mac, funnily enough
it's called "Broadcast." I have version 2 and it was written by IW2CTJ.

Ther are also several very good sat predication programmes for the Mac.
Personally I use OrbiTrack.

Hope this helps.

Sean.

----

wroth@netcom.com (Wayne D Roth) writes:

>Chris Terwilliger (a229aa@email.sps.mot.com) wrote:
>: In article <n7ryw.23.001735AB@teleport.com>, n7ryw@teleport.com (William
>: Roth) wrote:

>: > Avoid a Mac like the plague for anything related to Amateur Radio.

>: This is a really stupid thing to say...typical bias from a "PC" clone...
>: Terry Stader posts a list every month to this newsgroup listing amateur
>: radio software available for the Mac. There is lots of software available
>: and a lot more on the way.

>: --
>: * Chris Terwilliger, AA7WD   a229aa@email.sps.mot.com *
>: * Motorola   AA7WD@N7MRP.AZ.USA.NA *
>: * Phoenix Corporate Research Labs   those who forget the past *
>: * 2100 E. Elliot Rd. EL508   are condemned to repeat it *
>: * Tempe, AZ 85284   - George Santayana *

>Not for communication with the pacsats there isn't, or do you know of a
>mac based package that replaces the pb/pg suite? The only way I know
>that you can work the pacsats using broadcast/ftl0 protocal with a mac is
>with an IBM PC emulator.
>--
>   wroth@netcom.com

A Washington, DC local, Gilbert Macklin (not a ham, but a satellite
enthusiast, nonetheless) wrote a PB implementation for the Mac. He left
the area for New Mexico, but was planning to continue the work. HE was
working with Jim White, WD0E, so you might want to contact Jim for the
latest news (he can be reached at wd0e@amsat.org).

GL!

Eric

Eric Rosenberg   WD3Q, EI4VPS, ZL0ADG, J20BY, etc.
338 14th Street, NE   voice: +202-547-3441
Washington, DC 20002 USA   fax: +202-547-3613

ericr@access.digex.com   wd3q@amsat.org

STS-65
1 23173U 94039A   94203.60901007 .00120346 00000-0 25037-3 0   494
2 23173 28.4655 263.6371 0006312 86.2727 273.8663 16.10869786 2234

Satellite: STS-65
Catalog number: 23173
Epoch time: 94203.60901007   =   (22 JUL 94   14:36:58.47 UTC)
Element set: 049
Inclination: 28.4655 deg
RA of node: 263.6371 deg   Space Shuttle Flight STS-65
Eccentricity: .0006312   Keplerian element set JSC-049
Arg of perigee: 86.2727 deg   from NASA flight Day 15 vector
Mean anomaly: 273.8663 deg
Mean motion: 16.10869786 rev/day   G. L. Carman
Decay rate: 1.20346e-03 rev/day^2   NASA Johnson Space Center
Epoch rev: 223

--
Gary Morris   Internet: elements-request@alsys.com
KK6YB   Packet: KK6YB @ N0ARY.#NOCAL.CA.USA.NA
San Diego, CA, USA   Phone: +1 619-457-2700 x128
--
Gary Morris   Internet: garym@alsys.com (garym@cts.com)
Alsys Inc.   Packet: KK6YB @ N0ARY.#NOCAL.CA.USA.NA
San Diego, CA, USA   Phone: +1 619-457-2700 x128 (voice/fax)

End of Ham-Space Digest V94 #202
****